SAWA3005 Test Listing.ST25 SEQUENCE LISTING

			SEQUEN	CL LIJ	JIING					
<110>	Sawadaish	ni, Kazu	yuki							
<120>	Recombina Antibody	ant Anti	body Rec	ognizi	ing Diox	in and	Gene	Enco	ding Sai	d
<130>	SAWA3005/	'ESS								
<140> <141>	10/550,95 2005-09-2									
<150> <151>	PCT/JP200 2004-03-2		5							
<150> <151>	JP 2003-0 2003-03-2									
<160>	67									
<170>	PatentIn	version	3.3							
<210> <211> <212> <213>	1 342 DNA Unknown									
<220> <223>	DNA encod antibody	ding pol Dx 3860	ypeptide	of H-	-chain v	/ariable	regi	ion d	of monocl	onal
<220> <221> <222>	exon (1)(342	2)								
<400> gaa gt Glu Va 1	1 g aag ctg 1 Lys Leu	gtg gag Val Glu 5	tct ggg Ser Gly		ggc tta Gly Leu 10	gtg aag Val Lys	cct Pro	gga Gly 15	ggg Gly	48
tcc ct Ser Le	g aaa ctc u Lys Leu 20	tcc tgt Ser Cys	gca gco Ala Ala	tct of Ser C	gga ttc Gly Phe	act tto Thr Phe	agt Ser 30	tcc Ser	tat Tyr	96
gcc at Ala Me	g tct tgg t Ser Trp 35	gtt cgc Val Arg	cag act Gln Thr 40	cca g Pro G	gag aag Glu Lys	agg ctg Arg Leu 45	gag Glu	tgg Trp	gtc Val	144
gca to Ala Se 50	c ttt agt r Phe Ser	aat ggt Asn Gly	ggt ato Gly Ile 55	acc t	tac tat Tyr Tyr	cca gad Pro Asp 60	agt Ser	gtg Val	aag Lys	192
	a ttc acc g Phe Thr									240
	g acc agt t Thr Ser			Asp]						288
aga gg Arg Gl	c tat ggt y Tyr Gly 100	cct gct Pro Ala	tac tgg Tyr Trp	ggc of Gly of 105	caa ggg Gln Gly	act ctg Thr Lei	gtc Val 110	act Thr	gtc Val	336
tct go Ser Al	a a									342

<210> <211> <212> <213>	2 330 DNA Unkno	own													
<220> <223>	DNA e antib				/pept	ide	of L	cha	in v	/aria	ıble	regi	on c	of monoc	lonal
<220> <221> <222>	exon (1).	. (330))												
<400> cag gc Gln Al 1	2 t gtt a Val	gtg val	act Thr 5	cag Gln	gaa Glu	tct Ser	gca Ala	ctc Leu 10	acc Thr	aca Thr	tca Ser	cct Pro	ggt Gly 15	gaa Glu	48
aca gt Thr Va	c aca 1 Thr	ctc Leu 20	act Thr	tgt Cys	cgc Arg	tca Ser	agt Ser 25	act Thr	ggg Gly	gct Ala	gtt Val	aca Thr 30	act Thr	ctt Leu	96
aac ta Asn Ty															144
cta at Leu Il 50	e Gly	aat Asn	acc Thr	aac Asn	aac Asn 55	cga Arg	gct Ala	cca Pro	ggt Gly	gtt Val 60	cct Pro	gcc Ala	aga Arg	ttc Phe	192
tca gg ser Gl 65	c tcc y Ser	ctg Leu	att Ile	gga Gly 70	gac Asp	aag Lys	gct Ala	gcc Ala	ctc Leu 75	acc Thr	atc Ile	aca Thr	ggg Gly	gca Ala 80	240
cag ac Gln Th	t gag r Glu	gat Asp	gag Glu 85	gca Ala	ata Ile	tat Tyr	ttc Phe	tgt Cys 90	gct Ala	cta Leu	tgg Trp	tac Tyr	agc Ser 95	aac Asn	288
cat tt His Le	g gtg u Val	ttc Phe 100	ggt Gly	gga Gly	gga Gly	acc Thr	aaa Lys 105	ctg Leu	act Thr	gtc val	cta Leu	ggc Gly 110			330
<210> <211> <212> <213>	3 354 DNA Unkno	own													
<220> <223>	DNA (ypep1	tide	of I	⊣-cha	ain v	varia	able	reg	ion (of monoc	lonal
<220> <221> <222>	exon (1).	. (35	4)												
<400> gat gt Asp Va 1	3 a cag 1 Gln	ctt Leu	cag Gln 5	gag Glu	tca Ser	gga Gly	cct Pro	ggc Gly 10	ctc Leu	gtg Val	aaa Lys	cct Pro	tct Ser 15	cag Gln	48
tct ct Ser Le	g tct u Ser	ctc Leu 20	acc Thr	tgt Cys	tct Ser	gtc Val	act Thr 25	Gly	tac Tyr ige 2	Ser	atc Ile	acc Thr 30	agt Ser	ggc Gly	96

ttt tac tgg aac tgg atc cgg cag ttt cca gga aac aaa ctg gaa tg Phe Tyr Trp Asn Trp Ile Arg Gln Phe Pro Gly Asn Lys Leu Glu Tr 35 40 45	g 144 p
atg ggc tac ata agc tac gac ggt tac aat aat tac aac cca ttt ct Met Gly Tyr Ile Ser Tyr Asp Gly Tyr Asn Asn Tyr Asn Pro Phe Le 50 55 60	c 192 u
aaa aat cga gtg tcc atc act cgt gac aca tct gag aac cag ttt tt Lys Asn Arg Val Ser Ile Thr Arg Asp Thr Ser Glu Asn Gln Phe Ph 65 70 75 80	e
ctg aag ttg cat tct gtg act act gag gac aca gct aca tat tac tg Leu Lys Leu His Ser Val Thr Thr Glu Asp Thr Ala Thr Tyr Tyr Cy 85 90 95	t 288 s
gta agt tac ggt agt cgg agg gga gtt acc tac tgg ggc caa ggc ac Val Ser Tyr Gly Ser Arg Arg Gly Val Thr Tyr Trp Gly Gln Gly Th 100 105 110	c 336 r
act ctc aca gtc tcc tca Thr Leu Thr Val Ser Ser 115	354
<210> 4 <211> 330 <212> DNA <213> Unknown	
<220> <223> DNA encoding polypeptide of L-chain variable region of antibody Dx 3150	monoclonal
<220> <221> exon <222> (1)(330)	
<221> exon	a 48 u
<pre><221> exon <222> (1)(330) <400> 4 cag gct gtt gtg act cag gaa tct gca ctc acc aca tca cct ggt gag Gln Ala Val Val Thr Gln Glu Ser Ala Leu Thr Thr Ser Pro Gly Glo</pre>	u t 96
<pre><221> exon <222> (1)(330) <400> 4 cag gct gtt gtg act cag gaa tct gca ctc acc aca tca cct ggt gaa Gln Ala Val Val Thr Gln Glu Ser Ala Leu Thr Thr Ser Pro Gly Gla 1</pre>	t 96 r
<pre><221> exon <222> (1)(330) <400> 4 cag gct gtt gtg act cag gaa tct gca ctc acc aca tca cct ggt gaa Gln Ala Val Val Thr Gln Glu Ser Ala Leu Thr Thr Ser Pro Gly Gla 1</pre>	192
<pre><221> exon <222> (1)(330) <400> 4 cag gct gtt gtg act cag gaa tct gca ctc acc aca tca cct ggt gar Gln Ala Val Val Thr Gln Glu Ser Ala Leu Thr Thr Ser Pro Gly Glr 1</pre>	192 a 240
<pre> <221> exon <222> (1)(330) <400> 4 cag gct gtt gtg act cag gaa tct gca ctc acc aca tca cct ggt gaa Gln Ala Val Val Thr Gln Glu Ser Ala Leu Thr Thr Ser Pro Gly Gla 1</pre>	192 e 240 a 288

Page 3

```
<210>
       5
114
<211>
<212>
       PRT
<213>
       Unknown
<220>
        Polypeptide of H-chain variable region of monoclonal antibody Dx
<223>
<400>
Glu Val Lys Leu Val Glu Ser Gly Gly Gly Leu Val Lys Pro Gly Gly 1 5 10 15
Ser Leu Lys Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr 20 25 30
Ala Met Ser Trp Val Arg Gln Thr Pro Glu Lys Arg Leu Glu Trp Val 35 40 45
Ala Ser Phe Ser Asn Gly Gly Ile Thr Tyr Tyr Pro Asp Ser Val Lys 50 60
Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Arg Asn Ile Leu Tyr Leu 65 70 75 80
Gln Met Thr Ser Leu Arg Ser Glu Asp Thr Ala Ile Tyr Tyr Cys Ala
85 90 95
Arg Gly Tyr Gly Pro Ala Tyr Trp Gly Gln Gly Thr Leu Val Thr Val
100 105 110
Ser Ala
<210>
        6
<211>
       110
<212>
        PRT
<213>
       Unknown
<220>
        Polypeptide of L-chain variable region of monoclonal antibody Dx
<223>
        3860
Gln Ala Val Val Thr Gln Glu Ser Ala Leu Thr Thr Ser Pro Gly Glu 10 	 15
Thr Val Thr Leu Thr Cys Arg Ser Ser Thr Gly Ala Val Thr Thr Leu 20 25 30
Asn Tyr Ala Asn Trp Val Gln Glu Lys Pro Asp His Leu Phe Thr Gly 35 40 45
```

SAWA3005 Test Listing.ST25 Leu Ile Gly Asn Thr Asn Asn Arg Ala Pro Gly Val Pro Ala Arg Phe 50 55 60 Ser Gly Ser Leu Ile Gly Asp Lys Ala Ala Leu Thr Ile Thr Gly Ala 65 70 75 80 Gln Thr Glu Asp Glu Ala Ile Tyr Phe Cys Ala Leu Trp Tyr Ser Asn 85 90 95 His Leu Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly 100 105 110 <210> 118 <211> <212> PRT <213> Unknown <220> Polypeptide of H-chain variable region of monoclonal antibody Dx <223> <400> Asp Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Gln 1 10 15 Ser Leu Ser Leu Thr Cys Ser Val Thr Gly Tyr Ser Ile Thr Ser Gly 20 25 30 Phe Tyr Trp Asn Trp Ile Arg Gln Phe Pro Gly Asn Lys Leu Glu Trp 35 40 45Met Gly Tyr Ile Ser Tyr Asp Gly Tyr Asn Asn Tyr Asn Pro Phe Leu 50 60 Lys Asn Arg Val Ser Ile Thr Arg Asp Thr Ser Glu Asn Gln Phe Phe 65 70 75 80 Leu Lys Leu His Ser Val Thr Thr Glu Asp Thr Ala Thr Tyr Tyr Cys 85 90 95 Val Ser Tyr Gly Ser Arg Arg Gly Val Thr Tyr Trp Gly Gln Gly Thr 100 105 110 Thr Leu Thr Val Ser Ser <210> 8 110 <211> <212> PRT <213> Unknown <220> <223> Polypeptide of L-chain variable region of monoclonal antibody Dx

SAWA3005 Test Listing.ST25 <400> Gln Ala Val Val Thr Gln Glu Ser Ala Leu Thr Thr Ser Pro Gly Glu
10 15 Thr Val Thr Leu Thr Cys Arg Ser Ser Thr Gly Ala Val Thr Thr Ser 20 25 30 Asn Tyr Ala Asn Trp Val Gln Glu Lys Pro Asp His Leu Phe Thr Gly
35 40 45 Leu Ile Gly Asn Thr Asn Asn Arg Ala Pro Gly Val Pro Ala Arg Phe 50 60 Ser Gly Ser Leu Ile Gly Asp Lys Ala Ala Leu Thr Ile Thr Gly Ala 65 70 75 80 Gln Thr Glu Asp Glu Ala Ile Tyr Phe Cys Ala Leu Trp Tyr Asn Thr 85 90 95 His Leu Val Phe Gly Gly Gly Thr Arg Leu Thr Val Leu Gly
100 105 9 <210> <211> <212> PRT <213> Unknown <220> <223> Peptide of CDR 1 in H-chain variable region of monoclonal antibody Dx 3860 <400> 9 Gly Phe Thr Phe Ser Ser Tyr Ala 1 10 7 <210> <211> <212> PRT <213> Unknown <220> Peptide of CDR 2 in H-chain variable region of monoclonal <223> antibody Dx 3860 <400> 10 Phe Ser Asn Gly Gly Ile Thr <210> 11 <211> 8 <212> PRT <213> Unknown

<220>
<223> Peptide of CDR 3 in H-chain variable region of monoclonal antibody Dx 3860
Page 6

```
<400> 11
Ala Arg Gly Tyr Gly Pro Ala Tyr
1 5
<210>
       12
       9
<211>
<212> PRT
<213>
      Unknown
<220>
       Peptide of CDR 1 in L-chain variable region of monoclonal
<223>
       antibody Dx 3860
<400>
Thr Gly Ala Val Thr Thr Leu Asn Tyr 5
<210>
       13
<211> 8
<212> PRT
<213>
      Unknown
<220>
       Peptide of CDR 3 in L-chain variable region of monoclonal
       antibody Dx 3860
<400> 13
Ala Leu Trp Tyr Ser Asn His Leu
1
<210> 14
<211>
<212>
       9
       PRT
<213>
       Unknown
<220>
       Peptide of CDR 1 in H-chain variable region of monoclonal
<223>
       antibody Dx 3150
<400> 14
Gly Tyr Ser Ile Thr Ser Gly Phe Tyr
<210> 15
<211> 7
<212> PRT
 <213> Unknown
 <220>
       Peptide of CDR 2 in H-chain variable region of monoclonal
 <223>
        antibody Dx 3150
 <400> 15
Ile Ser Tyr Asp Gly Tyr Asn
 <210> 16
```

```
SAWA3005 Test Listing.ST25
<211>
       11
<212>
       PRT
<213>
       Unknown
<220>
       Peptide of CDR 3 in H-chain variable region of monoclonal
<223>
       antibody Dx 3150
<400>
       16
Val Ser Tyr Gly Ser Arg Arg Gly Val Thr Tyr
1 10
<210>
       17
<211> 9
<212> PRT
<213> Unknown
<220>
       Peptide of CDR 1 in L-chain variable region of monoclonal
<223>
       antibody Dx 3150
<400> 17
Thr Gly Ala Val Thr Thr Ser Asn Tyr
<210>
       18
<211>
       9
<212> PRT
<213>
      Unknown
<220>
       Peptide of CDR 3 in L-chain variable region of monoclonal
       antibody Dx 3150
<400> 18
Ala Leu Trp Tyr Asn Thr His Leu Val
1
<210>
       19
<211>
      33
<212> DNA
<213>
      Artificial
<220>
<223>
       Primer
<400> 19
gggaattcat grasttskgg ytmarctkgr ttt
                                                                         33
<210>
       20
<211>
       36
<212>
       DNA
      Artificial
<213>
<220>
<223>
       Primer
                                                                         36
actagtcgac atggrcagrc ttacwtyytc attcct
```

SAWA3005 Test Listing.ST25 <210> 21 <211> 36 <212> DNA <213> Artificial <220> <223> Primer <400> 21 actagtcgac atgatggtgt taagtcttct gtacct 36 <210> 22 <211> 36 <212> DNA <213> Artificial <220> <223> Primer <400> 22 actagtcgac atgggatgga gctrtatcat sytctt 36 <210> 23 <211> 35 <212> DNA Artificial <213> <220> <223> primer <220> <221> <222> misc_feature (30)..(30) inosine <223> <400> 23 cccaagcttc cagggrccar kggataracn grtgg 35 <210> 24 <211> 33 <212> DNA <213> Artificial <220> <223> Primer <400> 24 gggaattcat ggcctggayt ycwctywtmy tct 33 25 32 <210> <211> <212> DNA <213> Artificial <220> <223> primer <220> misc_feature (24):.(24) <221> <222> <223> inosine

Page 9

<400> cccaage	25 ctta gctcytcwgw gganggyggr aa	32
<210> <211> <212> <213>	26 20 DNA Artificial	
<220> <223>	Primer	
<400> taatac	26 gact cactataggg	20
<210> <211> <212> <213>	27 45 DNA Artificial	
<220> <223>	Linker	
	27 ggcg gttcaggcgg aggtggctct ggcggtggcg gatcc	45
<210> <211> <212> <213>	28 33 DNA Artificial	
<220> <223>	Primer	
<400> gaccat	28 ggaa gtgaagctgg tggagtccgg ggg	33
<210> <211> <212> <213>		
<220> <223>	Primer	
<400> cctccg	29 gaag agacagtgac cagggtacct tggc	34
<210> <211> <212> <213>	30 32 DNA Artificial	
<220> <223>	Primer	
<400> gcggat	30 ccca ggctgttgtg actcaggaat ct	32
<210> <211> <212> <213>	31 31 DNA Artificial	

Page 10

```
<220>
      Primer
<223>
<400> 31
                                                                        31
gagcggccgc gcctaggaca gtcagtttgg t
<210>
       32
       40
<211>
<212>
      DNA
      Artificial
<213>
<220>
       Primer
<223>
<400> 32
                                                                        40
ggtaccctgg tcactgtctc ttccggagga ggcggttcag
<210>
       33
<211> 41
<212>
       DNA
<213> Artificial
<220>
<223> Primer
<400> 33
                                                                        41
agattcctga gtcacaacag cctgggatcc gccaccgcca g
<210>
       34
<211>
       34
<212> DNA
<213> Artificial
<220>
<223> Primer
<400> 34
                                                                        34
gaccatggcc caggctgttg tgactcagga atct
<210>
       35
<211>
       35
<212> DNA
      Artificial
<213>
<220>
<223>
       Primer
                                                                         35
cctccggagc ctaggacagt cagtttggtt cctcc
       36
37
<210>
<211>
<212>
       DNA
       Artificial
<213>
<220>
 <223>
       Primer
 <400> 36
                                                                         37
 gcggatccga agtgaagctg gtggagtccg ggggagg
```

SAWA3005 Test Listing.ST25 <210> 37 31 <211> <212> DNA Artificial <213> <220> <223> Primer <400> 37 31 gagcggccgc tgcagagaca gtgaccagag t <210> 38 40 <211> <212> DNA <213> Artificial <220> <223> Primer <400> 40 accaaactga ctgtcctagg ctccggagga ggcggttcag <210> 39 <211> 41 <212> DNA Artificial <213> <220> <223> Primer 41 cccggactcc accagcttca cttcggatcc gccaccgcca g <210> 40 <211> 33 <212> DNA <213> Artificial <220> <223> Primer <400> 40 33 gaccatggat gtacagcttc aggagtcagg acc 41 <210> <211> 28 <212> DNA <213> Artificial <220> <223> Primer <400> 41 28 cctggaaact gccgaatcca gttccagt <210> 42 <211> 28 <212> DNA Artificial <213> <220> <223> Primer

<400> actggaa	42 actg gattcggcag tttccagg	28
<211> <212>	43 34 DNA Artificial	
<220> <223>	Primer	
<400> cctccgg	43 gagg agactgtgag agtggtacct tggc	34
<210> <211> <212> <213>	44 32 DNA Artificial	
<220> <223>	Primer	
	44 ccca ggctgttgtg actcaggaat ct	32
<210> <211> <212> <213>	45 31 DNA Artificial	
<220> <223>	Primer	
<400> gagcgg	45 ccgc gcctaggaca gtcagtctgg t	31
<210> <211> <212> <213>	46 40 DNA Artificial	
<220> <223>	Primer	
<400> ggtacc	46 actc tcacagtctc ctccggagga ggcggttcag	40
<210> <211> <212> <213>	47 41 DNA Artificial	
<220> <223>	Primer	
<400> agatto	47 ctga gtcacaacag cctgggatcc gccaccgcca g	41
<210> <211> <212> <213>	48 34 DNA Artificial	

<220> <223>	Primer			
<400> gaccato	48 gcc caggctgttg 1	tgactcagga	atct	34
<210> <211> <212> <213>	49 35 DNA Artificial			
<220> <223>	Primer			
	49 gagc ctaggacagt	cagtctggtt	cctcc	35
<210> <211> <212> <213>	50 37 DNA Artificial			
<220> <223>	Primer			
<400> gcggat	50 ccga tgtacagctt	caggagtcag	gacctgg	37
<210> <211> <212> <213>	51 28 DNA Artificial			
<220> <223>	Primer			
<400> cctgga	51 aact gccgaatcca	gttccagt		28
<210> <211> <212> <213>	52 28 DNA Artificial			
<220> <223>	Primer			
<400> actgga	52 actg gattcggcag	tttccagg		28
<210> <211> <212> <213>	53 31 DNA Artificial			
<220> <223>	Primer			
<400>	53	ataaaaataa	ıt	31

SAWA3005 Test Listing.ST25 <210> 54 <211> 40 <212> DNA <213> Artificial	
<220> <223> Primer	
<400> 54 accagactga ctgtcctagg ctccggagga ggcggttcag	40
<210> 55 <211> 41 <212> DNA <213> Artificial	
<220> <223> Primer	
<400> 55 tcctgactcc tgaagctgta catcggatcc gccaccgcca g	41
<210> 56 <211> 717 <212> DNA <213> Unknown	
<220> <223> scFv fragment Dx3860HL	
<220> <221> exon <222> (1)(717)	
<pre><400> 56 gaa gtg aag ctg gtg gag tcc ggg gga ggc tta gtg aag cct gga ggg Glu Val Lys Leu Val Glu Ser Gly Gly Gly Leu Val Lys Pro Gly Gly 1 5 10 15</pre>	48
tcc ctg aaa ctc tcc tgt gca gcc tct gga ttc act ttc agt tcc tat Ser Leu Lys Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr 20 25 30	96
gcc atg tct tgg gtt cgc cag act cca gag aag agg ctg gag tgg gtc Ala Met Ser Trp Val Arg Gln Thr Pro Glu Lys Arg Leu Glu Trp Val 35 40 45	144
gca tcc ttt agt aat ggt ggt atc acc tac tat cca gac agt gtg aag Ala Ser Phe Ser Asn Gly Gly Ile Thr Tyr Tyr Pro Asp Ser Val Lys 50 55 60	192
ggc cga ttc acc atc tcc aga gat aat gcc agg aac atc ctg tac ctg Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Arg Asn Ile Leu Tyr Leu 65 70 75 80	240
caa atg acc agt ctg agg tct gag gac acg gcc att tat tac tgt gca Gln Met Thr Ser Leu Arg Ser Glu Asp Thr Ala Ile Tyr Tyr Cys Ala 85 90 95	288
aga ggc tat ggt cct gct tac tgg ggc caa ggt acc ctg gtc act gtc Arg Gly Tyr Gly Pro Ala Tyr Trp Gly Gln Gly Thr Leu Val Thr Val 100 105 110	336
tct tcc gga gga ggc ggt tca ggc gga ggt ggc tct ggc ggt ggc gga Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Gly Gly Page 15	384

		115					120					123					
tcc ser	cag Gln 130	gct Ala	gtt Val	gtg Val	act Thr	cag Gln 135	gaa Glu	tct Ser	gca Ala	ctc Leu	acc Thr 140	aca Thr	tca Ser	cct Pro	ggt Gly	43	32
gaa Glu 145	aca Thr	gtc Val	aca Thr	ctc Leu	act Thr 150	tgt Cys	cgc Arg	tca Ser	agt Ser	act Thr 155	ggg Gly	gct Ala	gtt Val	aca Thr	act Thr 160	48	80
ctt Leu	aac Asn	tat Tyr	gcc Ala	aac Asn 165	tgg Trp	gtc Val	caa Gln	gaa Glu	aaa Lys 170	cca Pro	gat Asp	cat His	tta Leu	ttc Phe 175	act Thr	57	28
ggt Gly	cta Leu	ata Ile	ggt Gly 180	aat Asn	acc Thr	aac Asn	aac Asn	cga Arg 185	gct Ala	cca Pro	ggt Gly	gtt val	cct Pro 190	gcc Ala	aga Arg	5	76
ttc Phe	tca Ser	ggc Gly 195	tcc Ser	ctg Leu	att Ile	gga Gly	gac Asp 200	aag Lys	gct Ala	gcc Ala	ctc Leu	acc Thr 205	atc Ile	aca Thr	ggg Gly	6	24
gca Ala	cag Gln 210	act Thr	gag Glu	gat Asp	gag Glu	gca Ala 215	ata Ile	tat Tyr	ttc Phe	tgt Cys	gct Ala 220	cta Leu	tgg Trp	tac Tyr	agc Ser	6	72
aac Asn 225	cat His	ttg Leu	gtg Val	ttc Phe	ggt Gly 230	gga Gly	gga Gly	acc Thr	aaa Lys	ctg Leu 235	act Thr	gtc Val	cta Leu	ggc Gly		7	17
<210 <211 <211 <211	L>	57 720 DNA Unkn	own														
<220 <22		scFv	fra	gmen	t Dx	3860	LH										
<22 <22 <22	1>	exon (1).	. (72	0)													
cag	act	57 gtt Val	gtg Val	act Thr 5	cag Gln	gaa Glu	tct Ser	gca Ala	ctc Leu 10	acc Thr	aca Thr	tca Ser	cct Pro	ggt Gly 15	gaa Glu		48
aca Thr	gtc val	aca Thr	ctc Leu 20	act Thr	tgt Cys	cgc Arg	tca Ser	agt Ser 25	act Thr	ggg Gly	gct Ala	gtt Val	aca Thr 30	act Thr	ctt Leu		96
aac Asn	tat Tyr	gcc Ala 35	aac Asn	tgg Trp	gtc Val	caa Gln	gaa Glu 40	aaa Lys	cca Pro	gat Asp	cat His	tta Leu 45	tto Phe	act Thr	ggt	1	144
cta Leu	ata Ile 50	ggt	aat Asr	acc Thr	aac Asn	aac Asn 55	cga Arg	gct Ala	cca Pro	ggt	gtt Val	cct Pro	gco Ala	aga Arg	ttc Phe	:	192
tca Ser 65	ggc Gly	tco Ser	ctg Lei	g att i Il€	gga Gly 70	gac Asp	aag Lys	g gct s Ala	gco Ala	cto Leu 75	acc Thr	ato Ile	aca Thr	ggg Gly	g gca / Ala 80	;	240
cag Gln	act Thr	gag Glu	g gat u Asp	gag Glu 85	g gca ı Ala	ata Ile	tat Tyr	tto Phe	90	gct Ala age :	a Lei	ı tgç ı Tr	tao Tyi	age Sei 95	aac Asn	;	288
										_							

				_					-4					.	~~~	336
cat His	ttg Leu	gtg Val	Phe 100	ggt Gly	gga Gly	gga Gly	acc Thr	aaa Lys 105	Leu	act Thr	gtc Val	cta Leu	ggc Gly 110	ser	gga Gly	330
gga Gly	ggc Gly	ggt Gly 115	tca Ser	ggc Gly	gga Gly	ggt Gly	ggc Gly 120	tct Ser	ggc Gly	ggt Gly	ggc Gly	gga Gly 125	tcc Ser	gaa Glu	gtg val	384
aag Lys	ctg Leu 130	gtg Val	gag Glu	tcc Ser	ggg Gly	gga Gly 135	ggc Gly	tta Leu	gtg Val	aag Lys	cct Pro 140	gga Gly	ggg Gly	tcc Ser	ctg Leu	432
aaa Lys 145	ctc Leu	tcc Ser	tgt Cys	gca Ala	gcc Ala 150	tct Ser	gga Gly	ttc Phe	act Thr	ttc Phe 155	agt Ser	tcc Ser	tat Tyr	gcc Ala	atg Met 160	480
tct Ser	tgg Trp	gtt Val	cgc Arg	cag Gln 165	act Thr	cca Pro	gag Glu	aag Lys	agg Arg 170	ctg Leu	gag Glu	tgg Trp	gtc val	gca Ala 175	tcc Ser	528
ttt Phe	agt Ser	aat Asn	ggt Gly 180	ggt Gly	atc Ile	acc Thr	tac Tyr	tat Tyr 185	cca Pro	gac Asp	agt Ser	gtg Val	aag Lys 190	ggc Gly	cga Arg	576
ttc Phe	acc Thr	atc Ile 195	tcc Ser	aga Arg	gat Asp	aat Asn	gcc Ala 200	agg Arg	aac Asn	atc Ile	ctg Leu	tac Tyr 205	ctg Leu	caa Gln	atg Met	624
acc Thr	agt Ser 210	Leu	agg Arg	tct Ser	gag Glu	gac Asp 215	acg Thr	gcc Ala	att Ile	tat Tyr	tac Tyr 220	Cys	gca Ala	aga Arg	ggc Gly	672
tat Tyr 225	Gly	cct Pro	gct Ala	tac Tyr	tgg Trp 230	Gly	caa Gln	ggg Gly	act Thr	ctg Leu 235	vaı	act Thr	gtc Val	tct Ser	gca Ala 240	720
<21 <21 <21 <21	1> 2>	58 729 DNA Unkn	own													
<22 <22	-	scFv	fra	.gmen	t Dx	3150	HL									
<22 <22 <22	1>	exon (1).		:9)												
<40 gat Asp 1	ota	58 cag Gln	ctt Leu	cag Glr 5	gag Glu	ıtca Ser	gga Gly	cct Pro	ggc Gly 10	cto Leu	gtg val	aaa Lys	cct Pro	tct Ser 15	cag Gln	48
tct Ser	cto	tct Ser	cto Leu 20	acc Thr	tgt Cys	tct Ser	gto Val	act Thr 25	ggc	tac Tyr	tco Ser	ato	acc Thr 30	agt Ser	ggc	96
ttt Phe	tac Tyr	tgg Trp 35	aac Asr	tgg Trp	att Ile	cgg Arg	cag Glr 40	ttt Phe	cca Pro	gga Gly	a aad ⁄ Asr	aaa Lys 45	ctg Lei	gaa Glu	tgg Trp	144
atg Met	gg(Gl) 50	tac Tyr	ata Ile	a ago e Ser	tac Tyr	gac Asp 55	ggt Gly	tac / Tyr	aat Asr	aat 1 Asr	tad Tyl 60	c aad r Asi	cca Pro	tti Phe	ctc Leu	192

aaa Lys 65	aat Asn	cga Arg	gtg val	tcc Ser	atc Ile 70	act	cat	aac	aca	t Lis tct (Ser (aaa	aac	caq	ttt Phe	ttc Phe 80	240
ctg Leu	aag Lys	ttg Leu	cat His	tct Ser 85	gtg val	act Thr	act Thr	gag Glu	gac Asp 90	aca Thr	gct Ala	aca Thr	tat Tyr	tac Tyr 95	tgt Cys	288
gta Val	agt Ser	tac Tyr	ggt Gly 100	agt Ser	cgg Arg	agg Arg	gga Gly	gtt Val 105	acc Thr	tac Tyr	tgg Trp	ggc Gly	caa Gln 110	ggt Gly	acc Thr	336
act Thr	ctc Leu	aca Thr 115	gtc val	tcc Ser	tcc Ser	gga Gly	gga Gly 120	ggc Gly	ggt Gly	tca Ser	ggc Gly	gga Gly 125	ggt Gly	ggc Gly	tct Ser	384
ggc Gly	ggt Gly 130	ggc Gly	gga Gly	tcc Ser	cag Gln	gct Ala 135	gtt Val	gtg Val	act Thr	cag Gln	gaa Glu 140	tct Ser	gca Ala	ctc Leu	acc Thr	432
aca Thr 145	tca Ser	cct Pro	ggt Gly	gaa Glu	aca Thr 150	gtc Val	aca Thr	ctc Leu	act Thr	tgt Cys 155	cgc Arg	tca Ser	agt Ser	act Thr	ggg Gly 160	480
gct Ala	gtt Val	aca Thr	act Thr	agt Ser 165	aac Asn	tat Tyr	gcc Ala	aac Asn	tgg Trp 170	gtc Val	caa Gln	gaa Glu	aaa Lys	cca Pro 175	Mah	528
cat His	tta Leu	ttc Phe	act Thr 180	Gly	cta Leu	ata Ile	ggt Gly	aat Asn 185	acc Thr	aac Asn	aac Asn	cga Arg	gct Ala 190	PIU	ggt	576
gtt Val	cct Pro	gcc Ala 195	Arg	ttc Phe	tct Ser	ggc Gly	tcc Ser 200	Leu	att Ile	gga Gly	gac Asp	aag Lys 205	Ala	gcc	ctc Leu	624
acc Thr	ato Ile 210	Thr	ggg	gca Ala	cag Gln	act Thr 215	GIU	gat Asp	gag Glu	gcg Ala	ata Ile 220	י עו	ttc Phe	tgt Cys	gct Ala	672
ctt Leu 225	Trp	tac Tyr	aac Asr	aco Thr	cat His 230	Leu	gtg Val) ttc Phe	ggt Gly	gga Gly 235	GIY	a aco	aga Arg	ctg Lei	act Thr 240	720
	cta Lei															729
<2: <2:	L0> L1> L2> L3>	59 732 DNA Unki	nown													
	20> 23>	scF	v fr	agme	nt D	x315(OLH									
<2	20> 21> 22>	exo (1)	n (7	32)												
	00> g gc n Al	+	t gt 1 va	g ac 1 Th 5	t ca r Gl	g ga n Gl	a tc u Se	t gc r Al	a ct a Le 10	u iii	c ac r Th	a to r Se	a cc r Pr	t gg o Gl 15	t gaa y Glu	48
	a gt	c ac	a ct	_	t tg	t cg	c tc	a ag	t ac	t gg age	g gc 18	t gt	t ac	a ac	t agt	96

Thr	val.	Thr	Leu	Thr	Cvs	Ara	SAWA: Ser	3005 Ser	Test Thr	t Lis Gly	stin Ala	g.ST Val	25 Thr	Thr	Ser	
1111	vai	• • • • • • • • • • • • • • • • • • • •	20	••••	c, s	, g	-	25		_			30			
aac Asn	tat Tyr	gcc Ala 35	aac Asn	tgg Trp	gtc Val	caa Gln	gaa Glu 40	aaa Lys	cca Pro	gat Asp	cat His	tta Leu 45	ttc Phe	act Thr	ggt Gly	144
cta Leu	ata Ile 50	ggt Gly	aat Asn	acc Thr	aac Asn	aac Asn 55	cga Arg	gct Ala	cca Pro	ggt Gly	gtt Val 60	cct Pro	gcc Ala	aga Arg	ttc Phe	192
tct Ser 65	ggc Gly	tcc Ser	ctg Leu	att Ile	gga Gly 70	gac Asp	aag Lys	gct Ala	gcc Ala	ctc Leu 75	acc Thr	atc Ile	aca Thr	ggg Gly	gca Ala 80	240
cag Gln	act Thr	gag Glu	gat Asp	gag Glu 85	gcg Ala	ata Ile	tat Tyr	ttc Phe	tgt Cys 90	gct Ala	ctt Leu	tgg Trp	tac Tyr	aac Asn 95	acc Thr	288
cat His	ttg Leu	gtg Val	ttc Phe 100	ggt Gly	gga Gly	gga Gly	acc Thr	aga Arg 105	ctg Leu	act Thr	gtc Val	cta Leu	ggc Gly 110	tcc Ser	gga Gly	336
gga Gly	ggc Gly	ggt Gly 115	tca Ser	ggc Gly	gga Gly	ggt Gly	ggc Gly 120	tct Ser	ggc Gly	ggt Gly	ggc Gly	gga Gly 125	tcc Ser	gat Asp	gta Val	384
cag Gln	ctt Leu 130	Gin	gag Glu	tca Ser	gga Gly	cct Pro 135	GIY	ctc Leu	gtg val	aaa Lys	cct Pro 140	361	cag Gln	tct Ser	ctg Leu	432
tct Ser 145	Leu	acc Thr	tgt Cys	tct Ser	gtc Val 150	Inr	ggc Gly	tac Tyr	tcc Ser	atc Ile 155		agt Ser	ggc	ttt Phe	tac Tyr 160	480
tgg Trp	aac Asn	tgg Trp	att Ile	cgg Arg 165	Gin	ttt Phe	cca Pro	gga Gly	aac Asn 170	Lys	ctg Lei	gaa Glu	tgg Trp	ato Met 175	ggc	528
tac Tyr	ata Ile	ago Ser	tac Tyr 180	Asp	ggt Gly	tac Tyr	aat Asr	aat Asr 185	ııyr	aac Asr	cca Pro	ttt Phe	cto Leu 190	Lys	aat S Asn	576
cga Arg	gtg val	tco Ser 195	. Ile	act Thr	cgt Arg	gac S Asp	aca Thr 200	Sei	gag Glu	g aad I Asr	caq n Gli	g tti n Phe 20:	: PIII	cto Lei	aag Lys	624
ttg Lei	cat His 210	s Sei	gtg Val	act Thi	act Thr	gaq Gli 21	i ASI	aca Thi	a gct r Ala	t aca a Thi	a ta r Ty 22	יעיי	tgi Cys	gta Va	a agt l Ser	672
tad Tyl 22:	r Gly	ag¹ ⁄ Se	t cgg	g agg	g gga g Gly 230	y va	t aco	r Ty	c tgg r Trj	g gg p G1 23	у СП	a gge n Gl	c ace	c ac r Th	t ctc r Leu 240	720
aca Th	a gte r Va	t tc	c tca r Se	a r												732

<210> <211> <212> <213>

⁶⁰ 239 PRT Unknown

<220> <223> Polypeptide encoded by scFv fragment Dx3860HL

<400>

Glu Val Lys Leu Val Glu Ser Gly Gly Gly Leu Val Lys Pro Gly Gly 1 10 15

Ser Leu Lys Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr 20 25 30

Ala Met Ser Trp Val Arg Gln Thr Pro Glu Lys Arg Leu Glu Trp Val 35 40 45

Ala Ser Phe Ser Asn Gly Gly Ile Thr Tyr Tyr Pro Asp Ser Val Lys
50 60

Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Arg Asn Ile Leu Tyr Leu 65 70 80

Gln Met Thr Ser Leu Arg Ser Glu Asp Thr Ala Ile Tyr Tyr Cys Ala 85 90 95

Arg Gly Tyr Gly Pro Ala Tyr Trp Gly Gln Gly Thr Leu Val Thr Val 100 105 110

Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Gly Gly 115 120

Ser Gln Ala Val Val Thr Gln Glu Ser Ala Leu Thr Thr Ser Pro Gly 130 135 140

Glu Thr Val Thr Leu Thr Cys Arg Ser Ser Thr Gly Ala Val Thr Thr 145 150 160

Leu Asn Tyr Ala Asn Trp Val Gln Glu Lys Pro Asp His Leu Phe Thr 165 170 175

Gly Leu Ile Gly Asn Thr Asn Asn Arg Ala Pro Gly Val Pro Ala Arg 180 185 190

Phe Ser Gly Ser Leu Ile Gly Asp Lys Ala Ala Leu Thr Ile Thr Gly 195 200

Ala Gln Thr Glu Asp Glu Ala Ile Tyr Phe Cys Ala Leu Trp Tyr Ser 210 215 220

Asn His Leu Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly 225 230

<220>

⁶¹ 240 <210>

PRT

Unknown

Polypeptide encoded by scFv fragment Dx3860LH

<400>

Gln Ala Val Val Thr Gln Glu Ser Ala Leu Thr Thr Ser Pro Gly Glu
10 15

Thr Val Thr Leu Thr Cys Arg Ser Ser Thr Gly Ala Val Thr Thr Leu 20 25 30

Asn Tyr Ala Asn Trp Val Gln Glu Lys Pro Asp His Leu Phe Thr Gly 35 40

Leu Ile Gly Asn Thr Asn Asn Arg Ala Pro Gly Val Pro Ala Arg Phe 50 60

Ser Gly Ser Leu Ile Gly Asp Lys Ala Ala Leu Thr Ile Thr Gly Ala 65 70 75 80

Gln Thr Glu Asp Glu Ala Ile Tyr Phe Cys Ala Leu Trp Tyr Ser Asn 85 90

His Leu Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly Ser Gly 100 105 110

Gly Gly Gly Ser Gly Gly Gly Ser Gly Gly Gly Ser Glu Val 115 120

Lys Leu Val Glu Ser Gly Gly Gly Leu Val Lys Pro Gly Gly Ser Leu 130 135 140

Lys Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr Ala Met 145 150 160

Ser Trp Val Arg Gln Thr Pro Glu Lys Arg Leu Glu Trp Val Ala Ser 165 170 175

Phe Ser Asn Gly Gly Ile Thr Tyr Tyr Pro Asp Ser Val Lys Gly Arg 180 185 190

Phe Thr Ile Ser Arg Asp Asn Ala Arg Asn Ile Leu Tyr Leu Gln Met 195 200

Thr Ser Leu Arg Ser Glu Asp Thr Ala Ile Tyr Tyr Cys Ala Arg Gly 210 220

Tyr Gly Pro Ala Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ala 225 230 235 240

<210> <211> 62 243

Unknown

<220> Polypeptide encoded by scFv fragment Dx3150HL Asp Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Gln
1 10 15 Ser Leu Ser Leu Thr Cys Ser Val Thr Gly Tyr Ser Ile Thr Ser Gly 20 25 30 Phe Tyr Trp Asn Trp Ile Arg Gln Phe Pro Gly Asn Lys Leu Glu Trp 35 40 45 Met Gly Tyr Ile Ser Tyr Asp Gly Tyr Asn Asn Tyr Asn Pro Phe Leu 50 60Lys Asn Arg Val Ser Ile Thr Arg Asp Thr Ser Glu Asn Gln Phe Phe 65 70 75 80 Leu Lys Leu His Ser Val Thr Thr Glu Asp Thr Ala Thr Tyr Tyr Cys 85 90 95 Val Ser Tyr Gly Ser Arg Arg Gly Val Thr Tyr Trp Gly Gln Gly Thr 100 105 110 Thr Leu Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Ser 115 120 Gly Gly Gly Ser Gln Ala Val Val Thr Gln Glu Ser Ala Leu Thr 130 135 140 Thr Ser Pro Gly Glu Thr Val Thr Leu Thr Cys Arg Ser Ser Thr Gly 145 150 155 Ala Val Thr Thr Ser Asn Tyr Ala Asn Trp Val Gln Glu Lys Pro Asp 165 170 175 His Leu Phe Thr Gly Leu Ile Gly Asn Thr Asn Asn Arg Ala Pro Gly 180 185 190 Val Pro Ala Arg Phe Ser Gly Ser Leu Ile Gly Asp Lys Ala Ala Leu 195 200 205 Thr Ile Thr Gly Ala Gln Thr Glu Asp Glu Ala Ile Tyr Phe Cys Ala 210 215 220 Leu Trp Tyr Asn Thr His Leu Val Phe Gly Gly Gly Thr Arg Leu Thr 225 230 235 Val Leu Gly

```
63
<210>
       244
       PRT
       Unknown
<220>
       Polypeptide encoded by scFv fragment Dx3150LH
<223>
<400>
Gln Ala Val Val Thr Gln Glu Ser Ala Leu Thr Thr Ser Pro Gly Glu
1 10 15
Thr Val Thr Leu Thr Cys Arg Ser Ser Thr Gly Ala Val Thr Thr Ser 20 25 30
Asn Tyr Ala Asn Trp Val Gln Glu Lys Pro Asp His Leu Phe Thr Gly 35 40 45
Leu Ile Gly Asn Thr Asn Asn Arg Ala Pro Gly Val Pro Ala Arg Phe 50 60
Ser Gly Ser Leu Ile Gly Asp Lys Ala Ala Leu Thr Ile Thr Gly Ala
65 70 75 80
Gln Thr Glu Asp Glu Ala Ile Tyr Phe Cys Ala Leu Trp Tyr Asn Thr
85 90 95
His Leu Val Phe Gly Gly Gly Thr Arg Leu Thr Val Leu Gly Ser Gly 100 105
Gly Gly Gly Ser Gly Gly Gly Ser Gly Gly Gly Ser Asp Val
115 120 125
Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Gln Ser Leu
130 135 140
 Ser Leu Thr Cys Ser Val Thr Gly Tyr Ser Ile Thr Ser Gly Phe Tyr
145 150 155 160
 Trp Asn Trp Ile Arg Gln Phe Pro Gly Asn Lys Leu Glu Trp Met Gly
165 170 175
 Tyr Ile Ser Tyr Asp Gly Tyr Asn Asn Tyr Asn Pro Phe Leu Lys Asn
180 185 190
 Arg Val Ser Ile Thr Arg Asp Thr Ser Glu Asn Gln Phe Phe Leu Lys
195 200 205
 Leu His Ser Val Thr Thr Glu Asp Thr Ala Thr Tyr Tyr Cys Val Ser
210 220
```

SAWA3005 Test_Listing.ST25 Tyr Gly Ser Arg Arg Gly Val Thr Tyr Trp Gly Gln Gly Thr Thr Leu 225 230 235

Thr Val Ser Ser

64 <210>

114 <211>

<212> PRT

<213> Unknown

<220> Polypeptide of VH-chain variant (HL-M#5) of monoclonal antibody

<400> 64

Glu Val Lys Leu Val Glu Ser Gly Gly Gly Leu Val Lys Pro Gly Gly
1 10 15

Ser Leu Lys Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr 20 25 30

Ala Met Ser Trp Val Arg Gln Thr Pro Glu Lys Arg Leu Glu Trp Val 35 40 45

Ala Ser Ile Ser Asn Gly Gly Ile Thr Tyr Tyr Pro Asp Ser Val Lys
50 60

Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Arg Asn Ile Leu Tyr Leu 65 70 80

Gln Met Thr Ser Leu Arg Ser Glu Asp Thr Ala Ile Tyr Tyr Cys Ala 85 90 95

Arg Gly Tyr Gly Pro Ala Tyr Trp Gly Gln Gly Thr Leu Val Thr Val 100 105 110

Ser Ser

<210> 65

<211> <212> 114

PRT Unknown

<220>

Polypeptide of VH-chain variant (LH-M#1) of monoclonal antibody <223>

<400> 65

Glu Val Lys Leu Val Glu Ser Gly Gly Gly Leu Val Arg Pro Gly Gly
1 10 15

Ser Leu Lys Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr 20 25 30 Page 24

Ala Met Ser Trp Val Arg Gln Thr Pro Glu Lys Arg Leu Glu Trp Val 35 40 45

Ala Ser Leu Ser Asn Gly Gly Ile Thr Tyr Tyr Pro Asp Ser Val Lys 50 60

Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Arg Asn Ile Leu Tyr Leu 75 80

Gln Met Thr Ser Leu Arg Ser Glu Asp Thr Ala Ile Tyr Tyr Cys Ala 85 90 95

Arg Gly Tyr Gly Pro Ala Tyr Trp Gly Gln Gly Thr Leu Val Thr Val 100 105 110

ser Ala

<210> 66

<211> 114 <212> PRT

<213> Unknown

<220> <223> Polypeptide of VH-chain variant (LH-M#2) of monoclonal antibody Dx 3860

<400> 66

Glu Val Lys Leu Val Glu Ser Gly Gly Gly Leu Val Lys Pro Gly Gly 1 10 15

Ser Leu Lys Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr 20 25 30

Ala Met Ser Trp Val Arg Gln Thr Pro Glu Lys Arg Leu Glu Trp Val 35 40 45

Ala Ser Val Ser Asn Gly Gly Ile Thr Tyr Tyr Pro Asp Ser Val Lys
50 60

Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Arg Asn Ile Leu Tyr Leu 65 70 75 80

Gln Met Thr Ser Leu Arg Ser Glu Asp Thr Ala Ile Tyr Tyr Cys Ala 85 90 95

Arg Gly Tyr Gly Pro Ala Tyr Trp Gly His Gly Thr Leu Val Thr Val 100 105 110

Ser Ala

<210> <211> 67 114

Unknown

<220>

Polypeptide of VH-chain variant (LH-M#3) of nonoclonal antibody <223>

<400> 67

Glu Val Lys Leu Val Glu Ser Gly Gly Gly Leu Val Lys Pro Gly Gly 10 15

Ser Leu Lys Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr 20 25 30

Ala Met Ser Trp Val Arg Gln Thr Pro Glu Lys Arg Leu Glu Trp Val 35 40 45

Ala Ser Leu Ser Asn Gly Gly Ile Thr Tyr Tyr Pro Asp Ser Val Lys 50 60

Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Arg Asn Val Leu Tyr Leu 65 70 75 80

Gln Met Thr Ser Leu Arg Ser Glu Asp Thr Ala Ile Tyr Tyr Cys Ala 85 90 95

Arg Gly Tyr Gly Pro Ala Tyr Trp Gly Gln Gly Thr Leu Val Thr Val 100 105 110

Ser Ala